

## A KEY TO THE *XYLEBORUS* OF CALIFORNIA, WITH FAUNAL COMMENTS (COLEOPTERA: SCOLYTIDAE)

K. R. Hobson<sup>1</sup> and D. E. Bright<sup>2</sup>

Department of Entomological Sciences, University of California,  
Berkeley, California 94720;

<sup>2</sup>CLBRR, Canada Agriculture, Ottawa, Ontario K1A 0C6 Canada

*Abstract.*—A key to the *Xyleborus* species of California is presented. The collection and establishment of two very rare species, *Xyleborus californicus* and *X. xylographus* is reported from the central Sierra Nevada.

*Key words.*—*Xyleborus*, Scolytidae, California, ambrosia beetle

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During investigations into the insect associates of *Dendroctonus valens* LeConte, a few specimens of two very rare species of *Xyleborus* were collected. Insects were sampled during the summer months of 1986–1990 at the University of California's Blodgett Forest Research station near Georgetown, California in El Dorado County. The research forest is between 1200 and 1400 m in a mixed conifer association dominated by ponderosa pine [*Pinus ponderosa* Lawson], sugar pine [*P. lambertiana* Douglas], incense cedar [*Calocedrus decurrens* (Torrey) Florin], Douglas-fir [*Pseudotsuga menziesii* (Mirbel) Franco], white fir [*Abies concolor* (Gordon & Glendinning) Lindley], California black oak [*Quercus kelloggii* Newberry] and several other broad-leaved tree species. The specimens were collected in Lindgren flight traps (Lindgren 1983) baited with turpentine, a distillate of ponderosa pine resin or blank controls.

One specimen of *Xyleborus californicus* Wood was collected by KRH on 6 May 1990 in a trap baited with myrcene. This species was previously known only from a series of six specimens from Stanford University (collected 1944), one specimen from Yolo Co., California (collected 1949), and one specimen from Marion Co., Oregon. The Stanford University specimens were known to DEB for many years, but were considered to be intercepted or introduced but not established. It was, therefore, omitted from Bright & Stark (1973). Wood (1975) described and named the species but remarked that it was probably already named and was undoubtedly introduced into California, probably from either South America or Southeast Asia. Because of the lack of taxonomic information about the species of *Xyleborus* and the huge number of names available, Wood was unable to obtain a name for the species.

The collection by KRH confirms the establishment of this species in California, if indeed it is introduced, or indicates that the species may be an extremely rare, endemic native species. The host of this species is unknown.

Two specimens of *Xyleborus xylographus* Say were collected by KRH in a trap baited with turpentine on 28–31 May 1986 and in a trap baited with a mixture of  $\alpha$  and  $\beta$ -pinene on 6 May 1990. This species is known from Minnesota, Ontario,

<sup>1</sup> Current address: Department of Forest Resources, Utah State University, and Forest Science Lab, USFS Intermountain Experiment Station, Logan, Utah 84322.

and Quebec south to Texas and Florida. One specimen from China Flat, California is noted by Wood (1982) with the notation "introduction or labeling error?" That specimen was also known to DEB in the early 1960s but was considered an accidental occurrence in California and, therefore, omitted from Bright & Stark (1973).

The recent collection of two specimens by KRH confirms the occurrence of this species in California. This species is recorded in the east from *Quercus* spp. and we assume that this is the host in California. Because both species mentioned above were omitted in Bright & Stark (1973), a new key is presented below to aid in the recognition of the species.

#### CALIFORNIA SPECIES OF THE TRIBE XYLEBORINI

1. Scutellum conical, not filling scutellar notch, adjacent sides of scutellar notch pubescent; lower margin of declivity, beginning about interspace 7 bearing a series of pointed tubercles, the 2 at the apex of interspace 2 large, more prominent . . . *Xyleborinus saxeseni* (Ratzeburg)
- Scutellum flat, filling scutellar notch, pubescence in scutellar notch absent; lower margin of declivity smooth . . . . . 2
- 2(1b). Pronotum wider than long, coarsely asperate in front; body stout, about 2.2–2.4 × longer than wide . . . . . *Xyleborus dispar* (Fabricius)
- Pronotum longer than wide, finely asperate in front; body elongate, 2.8–3.0 × longer than wide . . . . . 3
- 3(2b). Declivity steep, somewhat flattened, its surface dull, minutely reticulate, granules on interspace 1 and 3 minute . . . . .
- . . . . . *Xyleborus xylographus* Say
- Declivity broadly sloping, convex, its surface shining, granules on interspaces 1 and 3 minute or coarse . . . . . 4
- 4(3b). Interstitial pubescence on elytra abundant, randomly placed, long; interior of striae punctures on declivity reticulate; granules on declivital interspaces 1 and 3 minute; length 2.0–2.2 mm . . . . .
- . . . . . *Xyleborus californicus* Wood
- Interstitial pubescence on elytra sparse, arranged in uniseriate even row; interior of striae punctures on declivity shining; granules on declivital interspaces 1 and 3 distinct; length 2.2–2.7 mm . . . . .
- . . . . . *Xyleborus intrusus* Blandford

*Material Examined.*—*Xyleborus californicus*: CALIFORNIA. EL DORADO Co.: Blodgett Forest, 6 May 1990, K. R. Hobson, flight trap with myrcene, 1 female. *Xyleborus xylographus*: CALIFORNIA. EL DORADO Co.: Blodgett Forest, 6 May 1990, K. R. Hobson, flight trap with  $\alpha$  and  $\beta$ -pinene, 1 female; same loc. 28–31 May 1986, K. R. Hobson, flight trap with turpentine, 1 female.

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